Complete Summary

GUIDELINE TITLE

Management of acute upper and lower gastrointestinal bleeding. A national clinical guideline.

BIBLIOGRAPHIC SOURCE(S)

Scottish Intercollegiate Guidelines Network (SIGN). Management of acute upper and lower gastrointestinal bleeding. A national clinical guideline. Edinburgh (Scotland): Scottish Intercollegiate Guidelines Network (SIGN); 2008 Sep. 57 p. (SIGN publication; no. 105). [194 references]

GUIDELINE STATUS

This is the current release of the guideline.

Any amendments to the guideline in the interim period will be noted on Scottish Intercollegiate Guidelines Network (SIGN) Web site.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Acute upper and lower gastrointestinal bleeding

Note: Upper gastrointestinal (GI) bleeding (or hemorrhage) is that originating proximal to the ligament of Treitz, in practice from the esophagus, stomach and duodenum. Lower gastrointestinal bleeding is that originating from the small bowel and colon. This guideline focuses upon upper GI and colonic bleeding since acute small bowel bleeding is uncommon.

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Risk Assessment
Treatment

CLINICAL SPECIALTY

Anesthesiology
Gastroenterology
Surgery

INTENDED USERS

Advanced Practice Nurses
Nurses
Patients
Pharmacists
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To provide recommendations based on current evidence for best practice in the management of acute upper and lower gastrointestinal (GI) bleeding
- To reduce mortality and the need for major surgery in the management of bleeding patients
- To prevent unnecessary hospital admission for patients presenting with bleeding that is not life threatening

TARGET POPULATION

Patients (over the age of 14) with acute upper and lower gastrointestinal (GI) bleeding, including the assessment and management of variceal, non-variceal, and colonic bleeding in adults

Note: The guideline deals with the management of bleeding that is of sufficient severity to lead to emergency admission to hospital. Bleeding of lesser severity is subject to elective investigation and is not considered here. The management of patients under the age of 14 is not covered by this guideline.

INTERVENTIONS AND PRACTICES CONSIDERED

Evaluation/Risk Assessment

1. Clinical evaluation
2. Initial (pre-endoscopic) Rockall score calculated and appropriate care initiated
3. Risk stratification
4. Admission to a dedicated gastrointestinal unit, if appropriate
5. Vasoactive drug therapy, if indicated

Management/Treatment

1. Fluid resuscitation (colloid or crystalloid solutions, blood products)
2. Endoscopic intervention
    - Variceal band ligation
    - Cyanoacrylate injection
3. Full (post-endoscopic) Rockall score
4. Repeat endoscopy and endo-therapy
5. Testing for *Helicobacter pylori*
6. Pharmacological management
    - High dose intravenous proton pump inhibitor therapy (e.g., omeprazole, pantoprazole)
    - Vasoactive drug therapy (e.g., terlipressin, somatostatin)
    - Antibiotic therapy
7. Balloon tamponade
8. Transjugular intrahepatic portosystemic stent shunts
9. Interventions for lower gastrointestinal bleeding including colonoscopy, computed tomography angiography/angiography, nuclear scintigraphy, embolisation, and surgery

MAJOR OUTCOMES CONSIDERED

- Bleeding rates
- Mortality rates
- Need for major surgery
- Hospital admissions

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Systematic Literature Review

The evidence base for this guideline was synthesized in accordance with Scottish Intercollegiate Guidelines Network (SIGN) methodology. A systematic review of the literature was carried out using a search strategy devised by a SIGN Information Officer. Databases searched include Medline, Embase, Cinahl, PsycINFO and The Cochrane Library. For most searches the year range covered was 2000-2007, but some went back to 1990. Internet searches were carried out on various websites including the New Zealand Guidelines Programme, National Electronic Library for Health (NELH) Guidelines Finder, and the US National Guideline Clearinghouse. The Medline version of the main search strategies can be found on the SIGN website, in the section covering supplementary guideline material. The main searches were supplemented by material identified by individual members of the development group.

Literature Search for Patient Issues

At the start of the guideline development process, a SIGN Information Officer conducted a literature search for qualitative and quantitative studies that addressed patient issues of relevance to gastrointestinal bleeding. The search was run in Medline, Embase, CINAHL and PsycINFO, and the results were summarised and presented to the guideline development group.

A number of themes were identified from the literature, the main ones being 'Patient Anxiety', 'Doctor-Patient Relationships' and 'Patient Education and Information'.

A copy of the Medline version of the patient search strategy is available on the SIGN Web site.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

1++: High quality meta-analyses, systematic review of randomised controlled trials (RCTs), or RCTs with a very low risk of bias

1+: Well-conducted meta-analyses, systematic reviews, or RCTs with a low risk of bias

1-: Meta-analyses, systematic reviews, or RCTs with a high risk of bias

2++: High quality systematic reviews of case control or cohort studies

> High quality case control or cohort studies with a very low risk of confounding or bias and a high probability that the relationship is causal

2+: Well-conducted case control or cohort studies with a low risk of confounding or bias and a moderate probability that the relationship is causal

2-: Case control or cohort studies with a high risk of confounding or bias and a significant risk that the relationship is not causal

3: Non-analytic studies (e.g., case reports, case series)

4: Expert opinion

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Once papers have been selected as potential sources of evidence, the methodology used in each study is assessed to ensure its validity. The result of this assessment will affect the level of evidence allocated to the paper, which will in turn influence the grade of recommendation that it supports.

The methodological assessment is based on a number of key questions that focus on those aspects of the study design that research has shown to have a significant influence on the validity of the results reported and conclusions drawn. These key questions differ between study types, and a range of checklists is used to bring a degree of consistency to the assessment process. Scottish Intercollegiate Guidelines Network (SIGN) has based its assessments on the MERGE (Method for Evaluating Research and Guideline Evidence) checklists developed by the New South Wales Department of Health, which have been subjected to wide consultation and evaluation. These checklists were subjected to detailed evaluation and adaptation to meet SIGN's requirements for a balance between methodological rigour and practicality of use.

The assessment process inevitably involves a degree of subjective judgment. The extent to which a study meets a particular criterion - e.g., an acceptable level of loss to follow up - and, more importantly, the likely impact of this on the reported results from the study will depend on the clinical context. To minimise any potential bias resulting from this, each study must be evaluated independently by at least two group members. Any differences in assessment should then be discussed by the full group. Where differences cannot be resolved, an independent reviewer or an experienced member of SIGN Executive staff will arbitrate to reach an agreed quality assessment.

Evidence Tables

Evidence tables are compiled by SIGN executive staff based on the quality assessments of individual studies provided by guideline development group members. The tables summarise all the validated studies identified from the systematic literature review relating to each key question. They are presented in a standard format to make it easier to compare results across studies, and will present separately the evidence for each outcome measure used in the published studies. These evidence tables form an essential part of the guideline development record and ensure that the basis of the guideline development group's recommendations is transparent.

Additional details can be found in the companion document titled "SIGN 50: A Guideline Developers' Handbook." (Edinburgh [UK]: Scottish Intercollegiate Guidelines Network. [SIGN publication; no. 50]), available from the SIGN Web site.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Synthesising the Evidence

Guideline recommendations are graded to differentiate between those based on strong evidence and those based on weak evidence. This judgment is made on the basis of an (objective) assessment of the design and quality of each study and a (perhaps more subjective) judgment on the consistency, clinical relevance and external validity of the whole body of evidence. The aim is to produce a recommendation that is evidence-based, but which is relevant to the way in which health care is delivered in Scotland and is therefore implementable.

It is important to emphasise that the grading does not relate to the importance of the recommendation, but to the strength of the supporting evidence and, in particular, to the predictive power of the study designs from which that data was obtained. Thus, the grading assigned to a recommendation indicates to users the likelihood that, if that recommendation is implemented, the predicted outcome will be achieved.

Considered Judgment

It is rare for the evidence to show clearly and unambiguously what course of action should be recommended for any given question. Consequently, it is not always clear to those who were not involved in the decision making process how guideline developers were able to arrive at their recommendations, given the evidence they had to base them on. In order to address this problem, Scottish Intercollegiate Guidelines Network (SIGN) has introduced the concept of considered judgment.

Under the heading of considered judgment, guideline development groups summarise their view of the total body of evidence covered by each evidence table. This summary view is expected to cover the following aspects:

- Quantity, quality, and consistency of evidence
- External validity (generalisability) of studies
- Directness of application to the target population for the guideline
- Any evidence of potential harms associated with implementation of a recommendation
- Clinical impact (i.e., the extent of the impact on the target patient population, and the resources required by National Health Service (NHS) Scotland to treat them in accordance with the recommendation)
- Whether, and to what extent, any equality groups may be particularly advantaged or disadvantaged by the recommendations made
- Implementability (i.e., how practical it would be for the NHS Scotland to implement the recommendation.)

Guideline development groups are provided with a pro forma in which to record the main points from their considered judgment. Once they have considered these issues, the group is asked to summarise their view of the evidence and assign a level of evidence to it, before going on to derive a graded recommendation.

Additional detail about SIGN's process for formulating guideline recommendations is provided in Section 6 of the companion document titled "SIGN 50: A Guideline Developers' Handbook." (Edinburgh [UK]: Scottish Intercollegiate Guidelines Network. [SIGN publication; no. 50], available from the SIGN Web site.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

A At least one meta-analysis, systematic review, or randomised controlled trial (RCT) rated as 1++ and directly applicable to the target population; *or*

A body of evidence consisting principally of studies rated as 1+, directly applicable to the target population, and demonstrating overall consistency of results

B A body of evidence including studies rated as 2++, directly applicable to the target population, and demonstrating overall consistency of results; *or*

Extrapolated evidence from studies rated as 1++ or 1+

C A body of evidence including studies rated as 2+, directly applicable to the target population and demonstrating overall consistency of results; *or*

Extrapolated evidence from studies rated as 2++

D Evidence level 3 or 4; *or*

Extrapolated evidence from studies rated as 2+

Good Practice Points: Recommended best practice based on the clinical experience of the guideline development group

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

A national open meeting is the main consultative phase of Scottish Intercollegiate Guidelines Network (SIGN) guideline development, at which the guideline development group presents its draft recommendations for the first time. The

national open meeting for this guideline was held on 4 May 2007 and was attended by representatives of all the key specialties relevant to the guideline. The draft guideline was also available on the SIGN website for a limited period at this stage to allow those unable to attend the meeting to contribute to the development of the guideline.

Peer Review

All SIGN guidelines are reviewed in draft form by independent expert referees, who are asked to comment primarily on the comprehensiveness and accuracy of interpretation of the evidence base supporting the recommendations in the guideline. A number of general practitioners (GPs) and other primary care practitioners also provide comments on the guideline from the primary care perspective, concentrating particularly on the clarity of the recommendations and their assessment of the usefulness of the guideline as a working tool for the primary care team. The draft is also sent to at least two lay reviewers in order to obtain comments from the patient's perspective. The comments received from peer reviewers and others are carefully tabulated and discussed with the Chair and with the guideline development group. Each point must be addressed and any changes to the guideline as a result noted or, if no change is made, the reasons for this recorded.

As a final quality control check prior to publication, the guideline and the summary of peer reviewers' comments are reviewed by the SIGN Editorial Group for that guideline to ensure that each point has been addressed adequately and that any risk of bias in the guideline development process as a whole has been minimised. Each member of the guideline development group is then asked formally to approve the final guideline for publication.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note from the Scottish Intercollegiate Guidelines Network (SIGN) and National Guideline Clearinghouse (NGC)*: In addition to these evidence-based recommendations, the guideline development group also identifies points of best clinical practice in the full-text guideline document.*

The grades of recommendations (A–D) and levels of evidence (1++, 1+, 1-, 2++, 2+, 2-, 3, 4) are defined at the end of the "Major Recommendations" field.

Assessment and Triage

Assessing Gastrointestinal Bleeding in Hospital

D - All patients presenting with acute upper gastrointestinal bleeding should have an initial *(pre-endoscopic)* Rockall score calculated. Patients with a Rockall score of 0 should be considered for non-admission or early discharge with outpatient follow up.

D - In patients with initial *(pre-endoscopic)* Rockall score >0 endoscopy is recommended for a full assessment of bleeding risk.

D - Patients with a full *(post-endoscopic)* Rockall score <3 have a low risk of rebleeding or death and should be considered for early discharge and outpatient follow up.

D - The Rockall score should be taken into account with other clinical factors in assigning patients to different levels of care. It should not be used in isolation to assign patients to high dependency care.

Organisation of Services

Dedicated Gastrointestinal (GI) Bleeding Unit

D - Patients with acute upper gastrointestinal haemorrhage should be admitted, assessed and managed in a dedicated gastrointestinal bleeding unit.

Resuscitation and Initial Management

Fluid Resuscitation

Initial Resuscitation

D -

- Shocked patients should receive prompt volume replacement.
- Red cell transfusion should be considered after loss of 30% of the circulating volume.

Colloid and Crystalloid Fluids

B - Either colloid or crystalloid solutions may be used to achieve volume restoration prior to administering blood products.

Early Pharmacological Management

A - Proton pump inhibitors should not be used prior to diagnosis by endoscopy in patients presenting with acute upper gastrointestinal bleeding.

Early Endoscopic Intervention

Timing of Endoscopy

Acute Lower Gastrointestinal Bleeding

C - Early endoscopic examination should be undertaken within 24 hours of initial presentation, where possible.

Management of Non-Variceal Upper Gastrointestinal Bleeding

Endoscopy

D - Endoscopic therapy should only be delivered to actively bleeding lesions, non-bleeding visible vessels and, when technically possible, to ulcers with an adherent blood clot.

Combination Therapies

A - Combinations of endoscopic therapy comprising an injection of at least 13 ml of 1:10,000 adrenaline coupled with either a thermal or mechanical treatment are recommended in preference to single modalities.

Repeat Endoscopy

B - Endoscopy and endo-therapy should be repeated within 24 hours when initial endoscopic treatment was considered sub-optimal *(because of difficult access, poor visualisation, technical difficulties)* or in patients in whom rebleeding is likely to be life threatening.

Rebleeding Following Endoscopic Therapy

D - Non-variceal upper gastrointestinal haemorrhage not controlled by endoscopy should be treated by repeat endoscopic treatment, selective arterial embolisation or surgery.

Pharmacological Therapy

Helicobacter Pylori (*H. pylori*)

Testing for *H. pylori*

A - Patients with peptic ulcer bleeding should be tested for *H. pylori (with biopsy methods or urea breath test)* and a one week course of eradication therapy prescribed for those who test positive. A further three weeks ulcer healing treatment should be given.

A - In non-non-steroidal anti-inflammatory (NSAID) users, maintenance antisecretory therapy should not be continued after successful healing of the ulcer and *H. pylori* eradication.

B - Biopsy samples to test for presence of *H. pylori* should be taken at initial endoscopy prior to commencing proton pump inhibitor therapy. Biopsy specimens should be histologically assessed when the rapid urease test is negative.

Acid Suppression and Agents to Arrest Bleeding

Acid Suppression

A - High-dose intravenous proton pump inhibitor therapy *(e.g., omeprazole or pantoprazole 80 mg bolus followed by 8 mg/hour infusion for 72 hours)* should be

used in patients with major peptic ulcer bleeding *(active bleeding or non-bleeding visible vessel* following endoscopic haemostatic therapy.

Continuation of Therapy for Other Medical Conditions

Cyclo-oxygenase 2 (COX-2) Inhibitors

A - Patients with healed bleeding ulcers who test negative for *H. pylori* require concomitant proton pump inhibitor therapy at the usual daily dose if NSAIDs, aspirin or COX-2 inhibitors are indicated.

Aspirin and Clopidogrel

A -

- Aspirin and NSAIDs should be discontinued when patients present with peptic ulcer bleeding.
- Once ulcer healing and eradication of *H. pylori* are confirmed, aspirin and NSAIDs should only be prescribed if there is a clear indication.

Selective Serotonin Reuptake Inhibitors

D - Selective serotonin reuptake inhibitors should be used with caution in patients who have an increased risk of gastrointestinal bleeding, especially in patients taking NSAIDs or aspirin. A non-selective serotonin reuptake inhibitor (SSRI) antidepressant may be an appropriate choice in such patients.

Anticoagulants, Corticosteroids

D - Oral anticoagulants or corticosteroids should be used with caution in patients at risk from gastrointestinal bleeding, especially in those taking aspirin or NSAIDs.

Management of Acute Variceal Upper Gastrointestinal Bleeding

Endoscopic Therapy for Acute Variceal Haemorrhage

Oesophageal Varices

A - Patients with confirmed oesophageal variceal haemorrhage should undergo variceal band ligation.

Gastric Varices

B - Patients with confirmed gastric variceal haemorrhage should have endoscopic therapy, preferably with cyanoacrylate injection.

Vasoactive Drug Therapy for Acute Variceal Haemorrhage

Vasoactive Drug Therapy Prior to Endoscopy

A - Prior to endoscopic diagnosis, terlipressin should be given to patients suspected of variceal haemorrhage.

Vasoactive Drug Therapy After Endoscopic Diagnosis of Acute Variceal Haemorrhage

A - After endoscopic treatment of acute oesophageal variceal haemorrhage patients should receive vasoactive drug treatment *(terlipressin for 48 hours, octreotide, or high-dose somatostatin each for three to five days)*.

Antibiotic Therapy

A - Antibiotic therapy should be commenced in patients with chronic liver disease who present with acute upper gastrointestinal haemorrhage.

Management of Bleeding Varices Not Controlled by Endoscopy

C - Transjugular intrahepatic portosystemic stent shunting is recommended as the treatment of choice for uncontrolled variceal haemorrhage.

D - Balloon tamponade should be considered as a temporary salvage treatment for uncontrolled variceal haemorrhage.

Prevention of Variceal Rebleeding

Endoscopic Therapy

Oesophageal Varices

A - Variceal band ligation combined with a beta blocker is recommended as secondary prevention for oesophageal variceal haemorrhage.

A - In patients unsuitable for variceal band ligation combination of non-selective beta blocker and nitrate is recommended as secondary prevention for oesophageal variceal haemorrhage.

Portosystemic Shunts

Oesophageal Varices

A - Transjugular intrahepatic portosystemic stent shunts should be considered to prevent oesophageal variceal rebleeding in patients with contraindications, intolerance to or failure of endoscopic and/or pharmacological therapy.

Gastric Varices

B - Transjugular intrahepatic portosystemic stent shunts should be considered to prevent gastric variceal rebleeding.

Management of Lower Gastrointestinal Bleeding

Localising Bleeding

D - The cause and site of massive lower gastrointestinal haemorrhage should be determined following the early use of colonoscopy and use of computed tomography scanning, computed tomography angiography or digital subtraction angiography.

D - Nuclear scintigraphy should be considered to assist in localisation of bleeding in patients with significant recent haemorrhage.

Interventions

Colonoscopic Haemostatic Techniques

D - In patients with massive lower gastrointestinal haemorrhage, colonoscopic haemostasis is an effective means of controlling haemorrhage from active diverticular bleeding or post-polypectomy bleeding, when appropriately skilled expertise is available.

Embolisation

D - In patients with massive lower gastrointestinal haemorrhage, if colonoscopy fails to define site of bleeding and control haemorrhage, angiographic transarterial embolisation is recommended as an effective means of controlling haemorrhage.

Surgery

D - Localised segmental intestinal resection or subtotal colectomy is recommended for the management of colonic haemorrhage uncontrolled by other techniques.

Definitions:

Grades of Recommendation

Note: The grade of recommendation relates to the strength of the evidence on which the recommendation is based. It does not reflect the clinical importance of the recommendation.

A At least one meta-analysis, systematic review, or randomised controlled trial (RCT) rated as 1++ and directly applicable to the target population; *or*

A body of evidence consisting principally of studies rated as 1+, directly applicable to the target population, and demonstrating overall consistency of results

B A body of evidence including studies rated as 2++, directly applicable to the target population, and demonstrating overall consistency of results; *or*

Extrapolated evidence from studies rated as 1++ or 1+

C A body of evidence including studies rated as 2+, directly applicable to the target population and demonstrating overall consistency of results; *or*

Extrapolated evidence from studies rated as 2++

D Evidence level 3 or 4; *or*

Extrapolated evidence from studies rated as 2+

Good Practice Points: Recommended best practice based on the clinical experience of the guideline development group

Levels of Evidence

1++: High quality meta-analyses, systematic reviews of randomised controlled trials (RCTs), or RCTs with a very low risk of bias

1+: Well-conducted meta-analyses, systematic reviews, or RCTs with a low risk of bias

1-: Meta-analyses, systematic reviews, or RCTs with a high risk of bias

2++: High quality systematic reviews of case control or cohort studies

> High quality case control or cohort studies with a very low risk of confounding or bias and a high probability that the relationship is causal

2+: Well-conducted case control or cohort studies with a low risk of confounding or bias and a moderate probability that the relationship is causal

2-: Case control or cohort studies with a high risk of confounding or bias and a significant risk that the relationship is not causal

3: Non-analytic studies (e.g., case reports, case series)

4: Expert opinion

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate management of patients with acute upper and lower gastrointestinal bleeding

POTENTIAL HARMS

Complications associated with treatment

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- This guideline is not intended to be construed or to serve as a standard of care. Standards of care are determined on the basis of all clinical data available for an individual case and are subject to change as scientific knowledge and technology advance and patterns of care evolve. Adherence to guideline recommendations will not ensure a successful outcome in every case, nor should they be construed as including all proper methods of care or excluding other acceptable methods of care aimed at the same results. The ultimate judgement must be made by the appropriate healthcare professional(s) responsible for clinical decisions regarding a particular clinical procedure or treatment plan. This judgement should only be arrived at following discussion of the options with the patient, covering the diagnostic and treatment choices available. It is, however, advised that significant departures from the national guideline or any local guidelines derived from it should be fully documented in the patient's case notes at the time the relevant decision is taken.
- The recommendations made about pharmacological therapy are based on evidence available to support therapeutic management decisions in patients who present with non-variceal upper gastrointestinal bleeding. The recommendations cover the prevention of recurrent ulcer bleeding and do not address primary prophylaxis of gastrointestinal bleeding.
- Lower gastrointestinal bleeding of modest severity is a common problem in primary care. This guideline addresses the management of bleeding that is of sufficient severity to warrant emergency admission to hospital. Bleeding of lesser severity, subject to elective investigation, is not considered.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Implementation of national clinical guidelines is the responsibility of each National Health Service (NHS) Board and is an essential part of clinical governance. Mechanisms should be in place to review care provided against the guideline recommendations. The reasons for any differences should be assessed and addressed where appropriate. Local arrangements should then be made to implement the national guideline in individual hospitals, units and practices. The

guideline development group has identified the key points to audit to assist with the implementation of this guideline.

Resource implications of key recommendations and key points to audit are available in section 10 of the original guideline document.

IMPLEMENTATION TOOLS

Audit Criteria/Indicators
Quick Reference Guides/Physician Guides

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness
Timeliness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Scottish Intercollegiate Guidelines Network (SIGN). Management of acute upper and lower gastrointestinal bleeding. A national clinical guideline. Edinburgh (Scotland): Scottish Intercollegiate Guidelines Network (SIGN); 2008 Sep. 57 p. (SIGN publication; no. 105). [194 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2008 Sep

GUIDELINE DEVELOPER(S)

Scottish Intercollegiate Guidelines Network - National Government Agency [Non-U.S.]

SOURCE(S) OF FUNDING

Scottish Executive Health Department

GUIDELINE COMMITTEE

Guideline Development Group

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Group Members: Dr Kelvin Palmer (*Chair*), Consultant Gastroenterologist, Western General Hospital, Edinburgh; Dr Robin Balfour, General Practitioner, Edinburgh; Dr Chris Cairns, Consultant in Anaesthesia and Intensive Care, Stirling Royal Infirmary; Ms Lilian D'Arcy, Lay Representative, Edinburgh; Dr Ewan Forrest, Consultant Gastroenterologist, Glasgow Royal Infirmary; Mr Malcolm Green, Lay Representative, Edinburgh; Dr Graeme Houston, Consultant Radiologist, Ninewells Hospital, Dundee; Ms Moira Kinnear, Principal Pharmacist, Western General Hospital, Edinburgh; Mr Colin MacKay, General Upper GI Surgeon, Victoria Infirmary, Glasgow; Ms Sheila Mair, Gastroenterology Nurse Practitioner, Hairmyres Hospital, East Kilbride; Mr James Mander, Consultant Colorectal Surgeon, Western General Hospital, Edinburgh; Dr John Morris, Consultant Gastroenterologist, Glasgow Royal Infirmary; Dr Moray Nairn, Programme Manager, SIGN; Dr Roddy Neilson, Consultant Haematologist, Falkirk and District Royal Infirmary; Dr William Ruddell, Consultant Physician, Forth Valley Acute Hospital Trust; Ms Joanna Kelly, Information Officer, SIGN

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

All members of the guideline development group made declarations of interest and further details of these are available on request from the Scottish Intercollegiate Guidelines Network (SIGN) Executive.

GUIDELINE STATUS

This is the current release of the guideline.

Any amendments to the guideline in the interim period will be noted on Scottish Intercollegiate Guidelines Network (SIGN) Web site.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the Scottish Intercollegiate Guidelines Network (SIGN) Web site.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Quick reference guide: Management of acute upper and lower gastrointestinal bleeding. Scottish Intercollegiate Guidelines Network, 2008 Sep. 2 p. Available in Portable Document Format (PDF) from the Scottish Intercollegiate Guidelines Network (SIGN) Web site.
- Key points for audit are available in the original guideline document.

- SIGN 50: A guideline developer's handbook. Edinburgh (Scotland): Scottish Intercollegiate Guidelines Network. (SIGN publication; no. 50). Available from the SIGN Web site.
- Appraising the quality of clinical guidelines. The SIGN guide to the AGREE (Appraisal of Guidelines Research & Evaluation) guideline appraisal instrument. Edinburgh (Scotland): Scottish Intercollegiate Guidelines Network, 2001. Available from the SIGN Web site.

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI Institute on January 15, 2009. The information was verified by the guideline developer on January 19, 2009.

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Date Modified: 2/23/2009